Flame Metals **Page 1 of 2**
SM 21st Ed. 3111B

Facility Name:_____VELAP ID_____

Assessor Name:_____Analyst Name:_____Inspection Date_____

Relevant Aspect of Standards	Reference	Y	N	N/A	Comments
Records Examined: SOP Number/ Revision/ Date _____ Analyst:_____ Sample ID: _____ Date of Sample Preparation:_____ Date of Analysis:_____					
Does the calibration curve include at least three concentration points?	SM3111.B.4.c				
If samples require digestion, are standards and method blanks also subjected to digestion?	SM3111.A.5 (INTRO)				
Is a matrix spike performed at a frequency of 1 in 10 samples, with an acceptable recovery of 85-115% (NOTE- method states <u>should</u>)?	SM3111.A.7 (INTRO)				
Is an additional standard (CCV) analyzed after every batch of 10 or fewer samples? (Recommended concentrations and criteria are in Table 3111:III.)	SM3111.A.7 (INTRO)				
Is a matrix spike duplicate (MSD) or a laboratory duplicate performed at a frequency of 1 in 20 samples per matrix, or at least 1 per batch?	SM1020B.7				
Fuel & oxidant: [ ] Commercial grade acetylene: [ ] NO copper or brass regulators, tubing, or fittings are used with acetylene. [ ] Air from compressor or commercially bottled gas, cleaned and dried through a suitable filter to remove oil, water, and other foreign substances.	SM3111B.3.b, SM3111B.3.a, SM3111D.3.a				
Fuel supplies are maintained at pressure slightly higher than controlled operating pressure by suitable valves.	SM3111A.6.e				
Hollow cathode lamps (single element preferred) or electrode-less discharge lamps may be used.	SM3111A.6.d				
Are standard metal solutions made by dilution stock standards to the optimum concentration range by appropriate dilution of stock solutions with water containing 1.5 mL HNO3 / liter?	SM3111B.3.j				
<u>Notes/Comments</u>					

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Relevant Aspect of Standards	**Reference**	**Y**	**N**	**N/A**	**Comments**
Sample Preparation:					
[ ] Samples are digested for total metal analysis; or [ ] samples are preserved to pH <2 with conc. nitric, and records indicate that the turbidity is less than 1 NTU (drinking water); or [ ] Samples are preserved in-house, analyzed a minimum of 16 hours after preservation, and records indicate that the turbidity is less than 1 NTU.	SM3111B.4.a, SM3030A , SM1060A.1, CFR 136.3, CFR 141.23 (k)(1)				*Wastewater samples must be digested.*
When determining Ca or Mg, are samples and standards diluted and mixed with lanthanum solution (58.65g lanthanum oxide to 250 mL conc. HCl) at a ratio of 100 mL sample to 10 mL lanthanum?	SM3111B.4.a				
When determining Fe or Mn, are samples and standards diluted and mixed with Ca solution (0.2497g Ca dissolved w/ 1+1 HNO3 and diluted after adding 10 mL conc. HNO3 to 1L) at a ratio of 100 mL sample to 25 mL Ca solution?	SM3111B.4.a				
When determining Cr, are samples and standards diluted and mixed at a ration of 100 mL sample to 1 mL 30% H2O2?	SM3111B.4.a				
MDLs have been calculated within the last year. The MDL for drinking water [ ] Barium is equal to or less than 2 mg/L; [ ] Cadmium is equal to or less than 0.005 mg/L; [ ] Chromium is equal to or less than 0.1 mg/L; [ ] Copper is equal to or less than 1.3 mg/L	CFR 141.23				
Notes/Comments					